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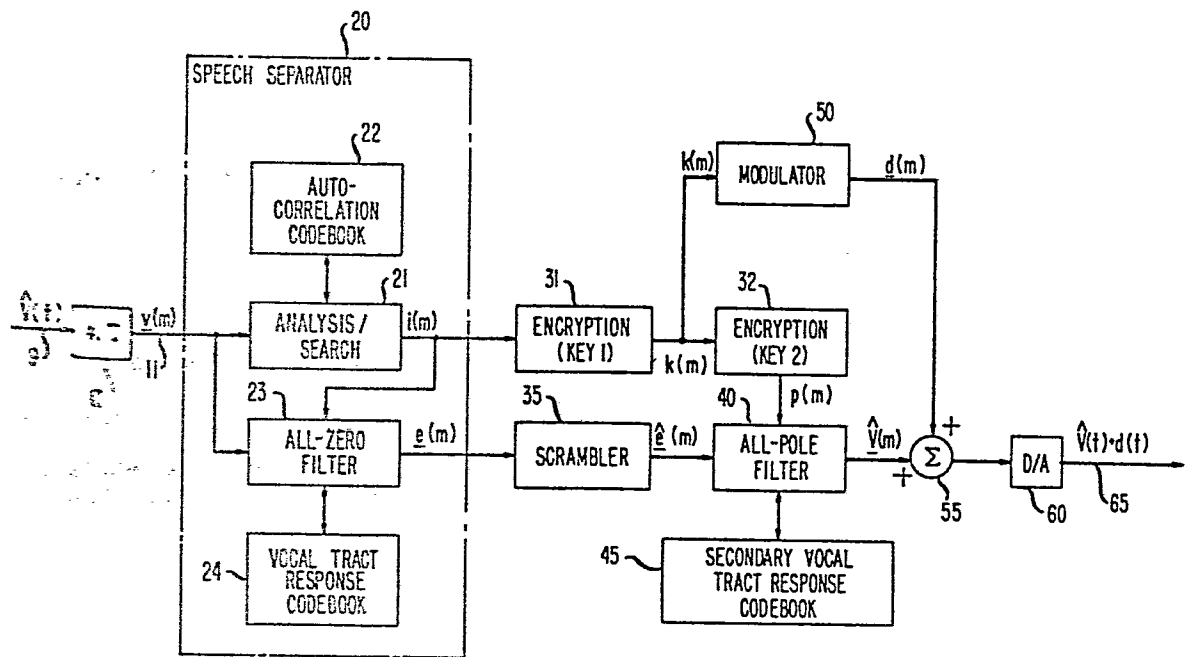
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54 **Apparatus for and methods of scrambling voice signals.**

57 Voice signals are transmitted over a voiceband telephone channel (65) with a high degree of security and good voice quality by applying to the transmission channel a first signal (by 21,22,31,50,55,60) which includes information derived from the vocal tract response of the signal, and a second signal (by 23, 24, 35,40,45,32,55,60) which includes continuous information derived from the excitation component of the voice signal.

FIG. 1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
P, A	GB-A-2 133 255 (STANDARD TELEPHONES) * Page 1, lines 47-93 *	1, 3, 6	H 04 K 1/00 G 10 L 9/14
A	--- THE BELL SYSTEM TECHNICAL JOURNAL, vol. 55, no. 9, November 1976, pages 1373-1388, American Telephone and Telegraph Co., New York, US; M.R. SAMBUR et al.: "Speech encryption by manipulations of LPC parameters" * Page 1374, last paragraph - page 1376, line 26 *	1, 4	
A	--- US-A-4 330 689 (KANG et al.) * Column 3, lines 13-43 *	1	
A	--- US-A-3 711 647 (BOYER) * Column 2, lines 16-60 *	2, 5	TECHNICAL FIELDS SEARCHED (Int. Cl. 4) H 04 K G 10 L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 17-12-1985	Examiner HOLPER G.E.E.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	